

MEMS Flow Sensor

D6F-01/02/05

High Accuracy Mass Flow Sensing

- Small size
- Fast response
- Applicable to air, non-corrosive gas, natural gas
- Applications include: medical respiratory equipment, analysis apparatus, combustion control



Ordering Information

Case	Gas	Flow range	Notes	Model
PPS	Air*	0-1L/min	Integral orifice	D6F-01A1-110
		0-2L/min		D6F-02A1-110
Aluminum	LNG* (13A)	0-5L/min	—	D6F-05N2-000

Ratings

■ Absolute Maximum Rating

Item	Symbol	Rating	Unit
Power supply	V_{CC}	26.4	VDC
Output voltage	V_{OUT}	6	VDC

■ Recommendation Condition

Item	Symbol	Condition	Min.	Typ.	Max.	Unit
Power supply	V_{CC}	—	10.8	—	26.4	VDC
Operating temperature	T_{ORR}	—	-10	—	60	°C
Output voltage (max.)	V_{OH}	$V_{CC} = 12 \text{ to } 24 \text{ VDC } I_{OH} = 5 \text{ mA}$	5	—	5.7	VDC
Output voltage (min.)	V_{OL}	$V_{CC} = 12 \text{ to } 24 \text{ VDC } I_{OH} = 5 \text{ mA}$	0	—	1	VDC

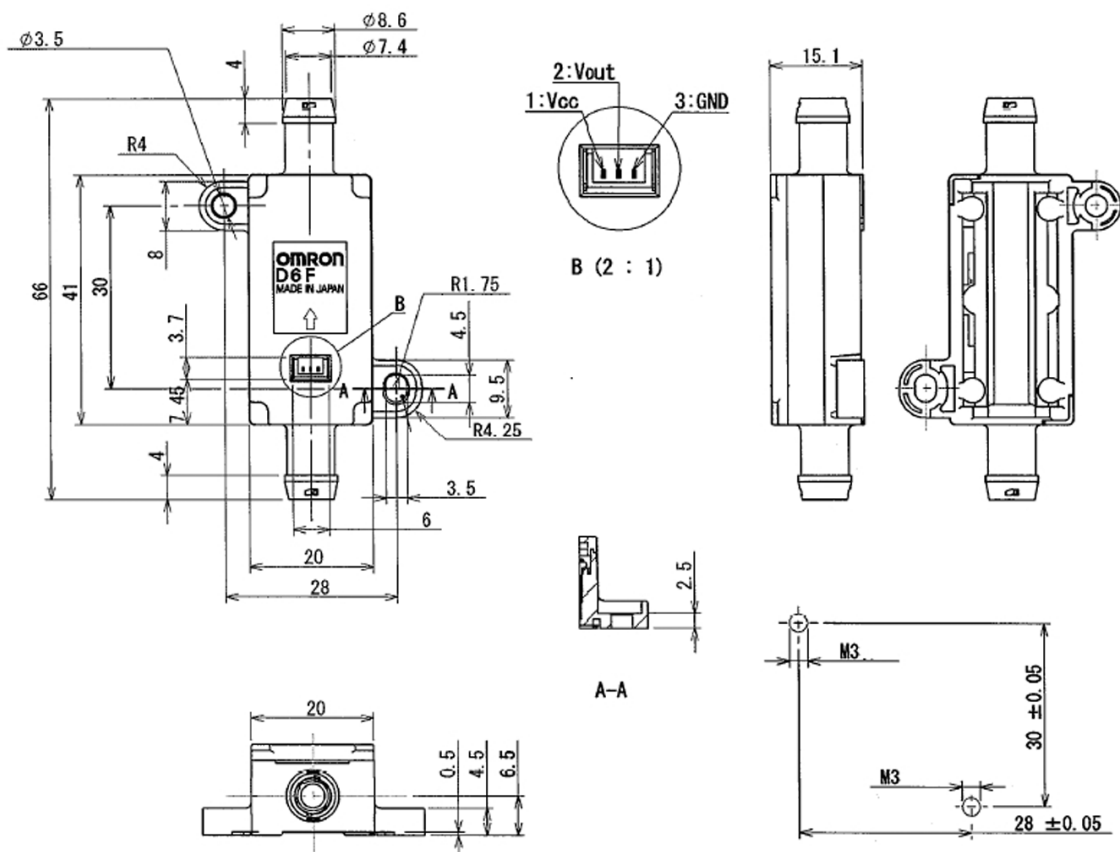
Characteristics

Model	D6F-01A1-110	D6F-02A1-110	D6F-05N2-000
Rated quality range	0-1L/min		0-5L/min
Joint type	Press-fit type (Press-fit min. external diameter: 7.4 mm, Press-fit max. external diameter: 8.6 mm) (passage diameter: 4 mm)		Rc 1/4 screw
Case material	PPS		Aluminum
Applicable gas	Air*		LNG*
Withstand pressure	200kPa (about 30 psi)		
Repeat accuracy	±3% F.S. max		
Operating temperature	-10 to 60 degrees (with no icing or condensation)		
Operating humidity	Under 85% RH (with no icing or condensation)		
Storage temperature	-40 to 80 degrees (with no icing or condensation)		
Storage humidity	Under 85% RH (with no ice or no dew)		
Output signal	Analog Output 1-5 VDC		
Current consumption	No-Load $V_{CC} = 12$ to 24 VDC, $V_{SS} = 0$ V 25 deg. C, max 15 mA		
Insulation resistance	More than 20M Ohm (500 VDC, between lead terminal and case)		
Dielectric strength	500 VAC, 50/60 Hz, for 1 minute. (Leakage current typ <1 mA.) Between the lead terminals and the base		
Orifice	Integral	Integral	Not applicable

Dimensions

Unit: mm

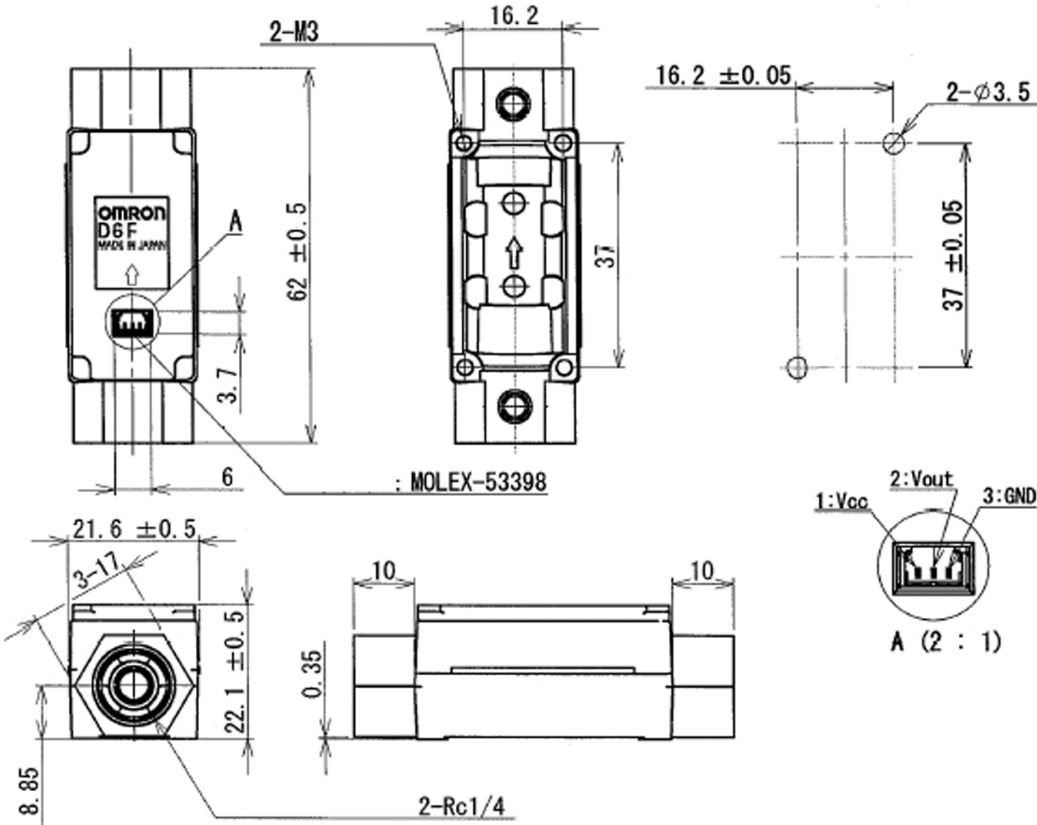
D6F-01A1-110
D6F-02A1-110



Note: Mount using an M3 pan head screw, tightened to 0.59 N•m max. torque.

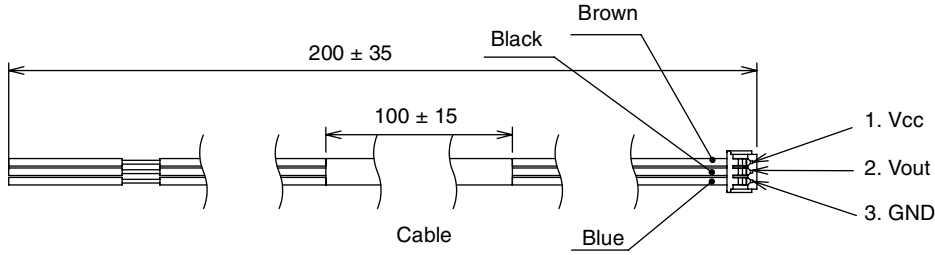
Unit: mm

D6F-05N2-000



Note: Mount using an M3 pan head screw, tightened to 0.59 N•m max. torque.

Applicable Cable for D6F



Housing: Molex - 51021
Terminal: Molex - 50079
Wire: 26-28 AWG

Omron Electronic Components, LLC

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ALL DIMENSIONS SHOWN ARE IN MILLIMETERS.

To convert millimeters into inches, multiply by 0.03937. To convert grams into ounces, multiply by 0.03527.

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